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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,477	04/12/2006	Michael Wicker	285827US0PCT	9553
22850 7590 09/18/2007 OBLÓN, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER REDDY, KARUNA P	
			ART UNIT 1713	PAPER NUMBER
			NOTIFICATION DATE 09/18/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	Application No. 10/575,477	Applicant(s) WICKER ET AL.	
	Examiner Karuna P. Reddy	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 8-13 and 16 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6, 7 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This office action is in response to the amendment filed on July 12, 2007.

Applicants have cancelled claim 14, amended claims 1-13 and added claims 15-16. Claims 1-13 and 15-16 are currently pending.

2. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the amendments and new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, 5, 8-9, 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazur et al (US 6, 020, 416) in view of Suetterlin (US 4,513,118).

Mazur et al disclose a dispersion comprising a blend of polymer components. The said polymer components comprising a first polymer comprising about 20% to about 50% by volume of the total polymeric content; a second polymer comprising about 45% to 80% by volume of the total polymeric content and a third polymer component comprising 0% to about 35% by volume of the total polymeric content. The said first, second and third polymer components each have a  $M_w$  greater than about 80,000 Daltons (column 3, lines 21-40). In addition, the polymer blends of the present invention may contain other constituents, including pigments, salts, UV stabilizers or inhibitors (column 3, lines 60-62). The present blends depending on the particular embodiment may include multistage polymer latex particles (column 4, lines 40-42) and read on the impact modifier of instant claim. In blends, the ratio of type II or type III polymers may be further adjusted to obtain desired mechanical properties of the final coating (column 5, lines 43-45). The films prepared from dispersion blends containing type I, II and III in proportions described by the invention show good ductibility (column 6, lines 22-24). See table I, II and III for a listing of monomers and the molecular weight of the copolymers. See

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table 5, for the ratio of polymers in the ternary blend of (meth)acrylate copolymers.

The prior art is silent with respect to the type and percentage of crosslinked poly(meth)acrylates; solution viscosity and properties associated with test specimen made using the polymer composition.

However, Suetterlin et al teach an emulsion polymer comprising a hard nonelastomeric core, an elastomeric intermediate stage produced in presence of the core and essentially composed of an acrylic ester and a crosslinking monomer, said polymer being useful as an impact strength modifying agent (abstract). It is hypothesized that the polymers of intermediate and final stage are disposed about the core in the manner of a shell (column 1, lines 14-19). Therefore, it would have been obvious to one skilled in the art at the time invention was made to add impact modifier of Suetterlin to the coating composition of Mazur et al and realize the above mentioned advantages because Mazur et al contemplates adding multistage polymer latex particles to the blend of polymers and Suetterlin et al has proved successfully that the multistage crosslinked core-shell polymer of acrylates provides impact strength to the compositions.

As to the percentage of crosslinked poly(meth)acrylates, it is held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA

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1977). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA

1980). See also *Peterson*, 315 F. 3d at 1330, 65 USPQ 2d at 1382

Therefore, in the absence of criticality or unexpected results, it would have been obvious to one skilled in the art at the time invention was made to alter the proportion of crosslinked poly(meth)acrylates as a matter of routine optimization and arrive at the instant invention with desired impact strength.

As to solution viscosity and properties associated with the specimen, given that prior teaches a blend of essentially similar copolymers with substantially similar molecular weights, and solution viscosities are a function of the copolymer and its molecular weight, copolymers of prior art inherently possess the solution viscosities and a dried coating of the prior art would inherently possess the properties claimed in instant invention. See *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

6. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazur et al (US 6, 020, 416) in view of Suetterlin (US 4,513,118) as applied to claim 1 above, and further in view of Petropoulos (US 3,220,916).

The discussion with respect to Mazur et al in view of Suetterlin et al in paragraph 5 is incorporated herein by reference.

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The prior art is silent with respect to lubricant such as stearyl alcohol.

However, Petropoulos teaches adding plasticizers or lubricants such as stearyl alcohol to coating compositions (column 11, lines 3-11). It is well known in the art of coating to include plasticizers or lubricants to improve flexibility and adhesion of coating compositions to the substrate or machineability of a coated film. Therefore, it would have been obvious to one skilled in the art to add lubricants such as stearyl alcohol to the coating composition of Mazur et al in view of Suetterlin et al and obtain a impact resistant coating composition, which is flexible, or a coated film that is machineable.

#### ***Allowable Subject Matter***

7. Claims 3-4, 6-7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

8. The double-patenting rejection is sustained for the reasons mentioned in previous office action dated May 2, 2007.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114.




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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy  
Examiner  
Art Unit 1713

/KR/

  
DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700